

8. TRANSPORTATION

INTRODUCTION

General Policy

Roads in Culpeper County are historically linked to the earliest settlements in the area, whose location in turn was influenced by soils, hydrology and topography. A network of roads and trails first evolved linking the farmers to the markets at Culpeper and other settlements. Since then, the transportation system in Culpeper County has changed in size and function to meet the changing transportation needs of its users.

Today the automobile is the dominant form of transportation for Culpeper County's citizens. VDOT statistics show that in 2002, Culpeper County had 76.28 miles of primary roadways, all paved, and 470.56 miles of secondary roadways. As this road network has developed, it has provided access to the furthest reaches of the County. Culpeper County's airport and rail line generally serve the transportation needs of commercial interests in the County.

Culpeper County has made a tremendous investment in its transportation infrastructure, primarily in the road system. This chapter provides guidelines for improving the county-wide transportation network so that it will continue to meet the changing needs of Culpeper's citizens and businesses. At the same time, this chapter recognizes the power that transportation decisions have to shape the growth of a community, and it attempts to relate the impacts that transportation investments can have to the overall development goals of the County.

Transportation Decision Makers

The transportation network in Culpeper County develops primarily based upon the actions of three main entities: Culpeper County, the Town of Culpeper and the Virginia Department of Transportation (VDOT). The Culpeper County Board of Supervisors, working with VDOT, makes decisions about where new roads will be located and what improvements will be made to existing roads in the County. VDOT is responsible for the design, construction and maintenance of all public roads in Culpeper County.

The Town of Culpeper is an integral component of the overall road network in the County. It is completely surrounded by the County and it is the central point where all of the minor arterials in the County converge. While the unincorporated County is affected to a certain extent by transportation decisions made by the Town, any changes and improvements made to the County roadway system can have significant impacts on the Town. Because of the consequences of these impacts, transportation decisions should be coordinated between the County and the Town.

A final factor affecting Culpeper County's transportation network is proposed transportation improvements in the central and northern Virginia region. Large regional projects, such as the Western Corridor Study, can have impacts on Culpeper County even if the final route for such a project does not lie within County boundaries. By increasing access on a regional level, these projects, as an example, can make it easier for people to live in Culpeper while working somewhere more distant. Culpeper County needs to be aware of such regional transportation projects to adequately plan for how they might affect the County.

ROAD NETWORK: EXISTING CONDITIONS

Roadway Classifications

The Virginia Department of Transportation uses the volume of traffic a road carries and the destination of the road to functionally classify roads in Virginia. Definitions of functional classifications for Culpeper County's roads are listed below.

- **Rural Principal Arterial** - These roads form an integrated network of continuous highways intended to serve intra- and interstate travel demand. Their primary function is moving goods and people at high volumes and high speeds. Access is a secondary function of these roads. Routes 211 and 29 (15/29) are principal arterials in Culpeper County.
- **Rural Minor Arterial** - These routes link cities and towns to each other and provide intrastate and intercounty service for local through traffic. Mobility is still their primary function; with access to rural communities and major developments a secondary function. County minor arterials include Routes 229, 522, 3 and 15.
- **Major Collectors** - The collector system accommodates the bulk of traffic movements within the County, linking subdivisions and rural villages to each other and to the arterial network. Mobility and land access functions are equal and speeds are generally lower due to local road access and vehicle turning. There are numerous major collectors in the County, examples of which include Routes 685, 729, 633, 621 and 663.
- **Minor Collectors and Local Roads** - These roads provide direct access to adjacent land and generally serve short distance travel. Their primary function is access, linking houses, shops and services to the major collector and arterial system. They are the local roads, subdivision streets and private lanes of the County.

The Federal Aid System (FAS) uses a different road classification system to identify roads. The categories are: interstate, primary, urban, secondary and non-federal aid. VDOT uses the FAS classifications for purposes of road funding, classifying the roads in Culpeper County as either primary roads or secondary roads. Primary roughly corresponds to arterial roads and secondary roughly corresponds to collector roads.

There are no interstate highways in Culpeper. However, four interstates are within a short traveling distance of the County. Interstate 95, thirty miles east of Culpeper, serves the north-south Atlantic Coast corridor. Thirty miles to the west is Interstate 81 that serves the corridor along the Appalachian Mountain chain. Interstate 64, thirty miles south of Culpeper,

and Interstate 66, twenty miles north of Culpeper, both connect Interstate 95 and Interstate 81.

Functional Classification Map

The Culpeper County Functional Roadway Classification Map provides a visual representation of the roadway network and the hierarchy of roads in the County (Map 8.A).

Travel Patterns

When looking at a map of Culpeper County's road network, it is immediately apparent that the Town is the focal point of the system. The Town of Culpeper was established as the regional government center and grew into the regional market town. The original roads and trails providing access to the Town have evolved into the arterial roadway system serving intra-county travel. Since the Town is still the County government seat and the County's commercial and industrial activity center, this road layout is still practical. However, it creates a bottleneck as traffic from five of the County's arterial roads converges on Main Street in Culpeper, while most County residents still focus their activities on the Town of Culpeper, a growing number of residents live in the County but work and shop in other communities. This is particularly true of the northern portion of Culpeper County, where many new residents are commuting to northern Virginia to work. According to the 2000 Census, approximately 46.08% of the County's labor force works outside Culpeper County. A 2003 Rappahannock – Rapidan Regional Labor Survey indicates that out-commuters are now 48.3% of the labor force. At the same time, several thousand people commute daily to Culpeper County to work.

Traffic Volumes / Level of Service (LOS)

The Virginia Department of Transportation provides annual updates of traffic counts for roadways in the County. These are reported in terms of average daily traffic (ADT), which is simply an estimate of how many vehicles use the specified roadway segment on an average day. Traffic counts are one of the primary tools used to plan for future transportation system improvements.

The Preliminary 2025 Virginia Statewide Highway Plan assesses selected County roadways and projects demand on the transportation network over the next twenty years, based on projected growth in Culpeper and surrounding counties. The plan projects traffic volumes to the year 2025 and calculates volume/capacity (V/C) ratios for each network link. Using the V/C ratio helps to identify existing problems as well as where pressures may be put on the system as the result of projected growth.

The V/C ratios are used, in part, to determine the level of service (LOS) at which a road performs with a given amount of traffic. Currently, VDOT places much more emphasis on Level of Service than on the V/C ratio. According to the Virginia Statewide Highway Plan, the minimum design standard for rural arterial roads is LOS "C". The minimum design standard for a rural collector road is "C" or "D" depending on whether the terrain is level or rolling. LOS "C" is defined as having stable traffic flow with traffic speeds of at least 45 mph. LOS "D" is defined as having unstable traffic flow and speeds of at least 40 mph. Existing and projected LOS for Culpeper County's Principal and Minor Arterial roads are shown in Table 8.1. Two of the County's Principal Arterial Roads, Routes 29 and 211, currently operate with an

acceptable LOS. Route 15/29 is at a LOS D, which is poor. VDOT 2025 traffic projections indicate that all of these roadways will suffer from decreasing levels of service in the future.

Culpeper County's Minor Arterial Roads are also carrying significant volumes of traffic. Of the County's Minor Arterials (Routes 3, 15, 229 and 522), all are experiencing a LOS D on some segments. Again, 2025 projections indicate further deterioration of LOS.

Safety

Data provided by the Virginia Division of Motor Vehicles show that in 2002, Culpeper County had 606 automobile accidents. These accidents resulted in nine fatalities and 483 injuries. Based on a countywide total of 25,903 licensed drivers, this yields a death rate of 0.35 per 1,000 licensed drivers for Culpeper County, which is twice as high as the 2002 statewide average of 0.175 per 1,000 licensed drivers.

OTHER MODES

Air

The Culpeper Regional Airport (T.I. Martin Field) is located on Rt. 677, Beverly Ford Road in Brandy Station, Virginia and provides aviation services to the community through maintenance of facilities and services. Built in 1966 on a 274-acre parcel, the airport was dedicated as a general aviation facility to serve not only recreation but also corporate aircraft activity. The airport is listed in the Virginia Air Transportation System Plan and is designated as a "Regional Airport Facility," hence recognizing the airport's potential to serve both regional and local general aviation needs and provide a role in regional aviation services. The airport offers a complete range of aviation services including aircraft fueling, maintenance, and flight school. The County owns the 105 "T" hangars and 2 corporate hangars. There are 135 based aircraft as of 2005. There is a full parallel taxiway, a new ramp of 25,000 sq. ft. and in FY 2004 a runway extension project of an additional 1000 feet affording a total of 5000 ft. was completed, resulting in the ability to attract larger corporate traffic. A Localizer approach will be available in the fall of 2005, a new terminal building is planned by FY 2008 and additional parking and ramp expansion are also planned. The airport is growing to better accommodate all types of private and corporate aircraft.

The Culpeper Regional Airport serves the County of Culpeper in several specific areas. The first is as an engine for Economic Development. In 1984, the County separated 106 acres of the airport property for the Culpeper County Industrial Air Park in order to capitalize on the availability of the airport infrastructure. The County has subdivided the land into 14 industrial sites, (some with potential access to the runway), installed access roads using the State Industrial Access Program and developed water and sewer facilities using industrial revenue bonds. Located adjacent to the Industrial Airpark, the airport enables corporations that desire to locate in Culpeper to be near a viable Foreign Trade Zone. The proximity to a limited access highway and rail service combine to make Culpeper a small inter-modal port, geographically centered on the airport.

As business expansion continues to move west and south from the Washington D.C. area, we are beginning to see a marked increase in corporate aviation traffic. With the introduction

of the Micro-Jet or Very Light Jet Market, the paradigm of air travel has begun to shift to the smaller regionally located airports. Add to this, the runway and ramp improvements and we are already seeing an increase in the number of corporate aircraft utilizing the airport facilities. With the 9-11 attack on America and the advent of the Washington DC Air Defense Zone, commonly referred to as ADIZ, our location has become even more desirable to pilots seeking to be based outside of this restricted zone. This location has become so desirable that the number of people on the current t-hangar waiting list wanting exceeds the total number of currently based aircraft. Along with these amenities, a full service maintenance shop and competitive fuel prices enhance the airports' appeal to modern corporate aircraft.

Recreational aviation is well served at the Culpeper Regional Airport. The installation of a 24-hour self-fueling tank will afford this group more freedom and will generate additional revenue. Recreational aviators with aircraft based in Culpeper bring in tax revenue and fuel sales dollars, as well as maintenance and hangar fees.

While no one can predict the future, the current trends indicate that general aviation is on the rise. Culpeper County is poised to embrace the future and realize the goal of making Culpeper Regional Airport the finest airport of its size in the state.

Rail

Culpeper's sole rail line is a two-track right-of-way which traverses the County from Rapidan in the southeast; through Mitchells and Winston to the Town of Culpeper; and then east along Route 29 through Brandy Station and Elkwood. Owned by the Norfolk-Southern Railway, the line connects to Charlottesville on the south and to Manassas, Alexandria and Washington, D.C. on the north, providing freight and passenger service. The right-of-way also provides utility easements for communication lines and other services taking advantage of this continuous line to access different communities.

Twelve freight trains move through the County daily providing industrial service to County and other businesses. Local demand generates approximately 25 cars per week in freight activity. Existing sidings in Culpeper include Rapidan Station, Buena Quarry, Cedar Mountain Stone Quarry, Winston Station, ITT Teves (Route 686), Cargill/Keller (Route 29 Bypass), Old Dominion (Route 667), Farmers Co-op (Route 29 Business), County Farm Service (Route 666), Culpeper Wood Preservers Route 666), Brandy Station, Elkwood and in the Town of Culpeper, Culpeper Station, Bingham-Taylor, and Rochester Rope. It is expected that rail will continue to play an important role in the economic development of the County. Two daily Amtrak trains serve Culpeper, stopping at the depot in Town on East Davis Street. The Crescent line travels between New York and New Orleans, and the Cardinal line serves the mid-west.

Commuter rail service now connects both Manassas and Fredericksburg with Washington. This service currently sees very limited ridership by Culpeper citizens. Any consideration of extending service to Culpeper should be undertaken carefully. Prior to extending commuter rail service, all impacts, including fiscal impacts would need to be thoroughly studied. Clear benefits to the community must be identified and the concept must ultimately be supported by the community. Potential stops in Culpeper County include Brandy Station, downtown

Culpeper and Winston. Such service would suggest high density development around stations coupled with strict limits on development in rural and agricultural areas.

Finally, Culpeper County has supported, and continues to support an effort to provide passenger rail service from Bristol, VA to Washington, D.C. This service would include stops in many “college towns” such as Lynchburg and Charlottesville. Many tourist locations are included. The Town of Culpeper is slated as a stop.

Public

Public transportation in Culpeper County is limited to the services provided by the Virginia Rural Transit Authority. Currently, two buses provide service within town limits. Both buses have fixed routes and stops. The County currently provides one bus to run from locations outside town limits to destinations in town and to employment destinations. Additional buses are desired in the future.

Commute Alternatives

The Rappahannock-Rapidan Planning District Commission operates a Rideshare program that matches commuters with carpools. Commuters contact the program and are paired based on their destinations. In support of this program, there are two commuter park and ride lots in the County, where carpoolers can leave their cars for the day. One of these lots is located at Clevenger’s Corner, at the intersection of Routes 211 and 229. The other lot is located at the intersection of Route 29 and Route 663, the area proposed for the Brandy Station/Route 29 interchange.

PLANNING GUIDELINES

Transportation-Land Use Link

Culpeper County’s transportation network provides a framework upon which we build our community. While our transportation system is designed to support our goals of efficiently moving goods and people, it also should support our long-range development goals. Our past investments in the road network have locked us into certain patterns of development. Our future road improvements should be carefully designed to promote the development patterns envisioned throughout this Comprehensive Plan.

The location and improvement of roads can be used to help direct growth to certain areas. We should plan for road improvements that will support the planned growth of our village centers. Areas designated for commercial and industrial development should be provided with transportation access in advance of demand. Major thoroughfares which are improved or newly constructed may necessarily impact projected land use in the vicinity of such facilities.

Traffic Impact Studies

A traffic impact study is used to assess the impact a proposed development may have on the transportation system. It determines if the capacity and level of service of adjacent roadways

is adequate to serve the development, and evaluates the development's potential impacts on local and regional road networks.

The need for a traffic impact study should be determined by Culpeper County, in consultation with VDOT, on a case-by-case basis. In general, all applications for rezonings, major subdivisions, special use permits, and site plans should be reviewed to determine the need for a traffic impact study. Cumulative impacts require special consideration.

The landowner or developer is responsible for preparing a traffic impact study. He should work with Culpeper County and VDOT in determining the extent of the study area and the specific issues to be addressed. Any traffic impact study should follow the basic format outlined in the VDOT Land Development manual, and should be based upon the latest edition of the Institute of Traffic Engineers (ITE) Manual.

Regional Transportation Projects

Western Corridor Study: VDOT has conducted a Major Investment Study of alternative traffic routes around the western side of the Washington D.C. metropolitan area. Termed the Western Corridor Study, they evaluated several alternative routes that would take traffic from I-95 near Fredericksburg and route it west through Prince William County and to Dulles Airport. The study originally envisioned a western Bypass around Washington, D.C., but the state of Maryland withdrew its support for a major highway through this area.

Since it no longer serves through traffic, the effects of this road, if built, will be to open up this area to further development. Since none of the alternative routes being studied pass through Culpeper County, we will not see any direct impacts if this road is built. However, by increasing regional access, it could potentially increase development pressures in the County, particularly for residential development.

Route 29 Corridor Study: VDOT completed a study of the Route 29 corridor from Warrenton to Charlottesville. The study examined projected growth along this segment of Route 29 and developed different scenarios to improve the road to accommodate projected demand. The potential impacts of this study on Culpeper County are addressed in more detail in the Transportation Plan section.

Scenic Roads

Culpeper County currently has several roads designated as an official Virginia Byways: Route 522 / Sperryville Pike, Route 15, Route 802, and a portion of Route 615. As a County, we are proud of the natural beauty that Culpeper has to offer, and should highlight this to travelers in the County. The County should designate certain major or minor collectors that provide travelers with views of unique scenic natural and historic areas as scenic roads. Such a program will provide the County an additional tool when planning transportation improvements. Map 8.B shows existing Virginia Byways and potential scenic roads.

A scenic road designation is intended to highlight certain roads or road segments that should receive additional attention during the design of road improvements to preserve their scenic qualities. It also is intended to highlight certain roads that may merit special improvements to

increase the quality of the road or provide travelers with the opportunity to view the County's scenic resources. Such improvements may include roadside stops or historic markers.

The designation of a County scenic road should not prevent VDOT from exercising its duties to improve and maintain roads in Culpeper County. When planning improvements for County scenic roads the County should work with VDOT to preserve, protect and enhance to the extent practical the aesthetic, environmental and cultural resources in the road corridor. Road improvements on these roads should be designed to reflect the character of the area. Lower design speeds should be used on minor collector and local streets, since these streets stress access. Trees should be preserved along the sides of roads when they do not pose a safety hazard. Special guidelines for signs should be developed.

ROAD IMPROVEMENT PROGRAMS

The Virginia Department of Transportation identifies approximately 76 miles of primary roadways in Culpeper County, which include Routes 3, 15, 29, 211, 229, 299, and 522. Improvements to these primary roads are controlled by the Virginia Department of Transportation (VDOT) through the Primary System Improvement Program. This is a six-year program that is revised annually and approved by the Commonwealth Transportation Board. County officials are given an opportunity to request that projects be added to the program at an annual public hearing. Projects are included in the program based on need and available funding.

Culpeper County currently has several projects in the FY 05 - FY 10 Primary System Improvement Program which are at least partially funded:

- Construction of two parallel lanes on Route 3 from just beyond the Town Corporate Limits to Lignum. This project is divided into two segments. Four-laning from Lignum to the Orange County line, and from the Town Limits to just east of Rt. 522 has been previously completed.
- Construction of two parallel lanes on 15/29 Business from the north Town limits to Inlet. This project is divided into two segments.
- The four-laning of Route 229 from the Town Corporate Limits to just beyond Ira Hoffman Lane.

In addition to the projects on VDOT's Primary System Improvement list, the County Board of Supervisors annually adopts a Primary Road Priority List, which prioritizes the County's projects on VDOT's Primary System Improvement Program and identifies new projects the County will request to be added to this program.

Secondary Road Improvement Program

The Virginia Department of Transportation identifies approximately 128 miles of secondary roads which serve as major collectors for Culpeper County. In the past, these have been farm-to-market roads that now serve rural residences and subdivisions. Improvements to the secondary road system are accomplished through a number of public and private resources.

The principal mechanism is the Six-Year Secondary Road Improvement Program jointly administered by Culpeper County and VDOT. Projects are proposed by County staff, citizens and VDOT. Projects are reviewed and evaluated by the Culpeper County Planning Commission and prioritized and approved by the Board of Supervisors. The update and review process occurs every other year. The list generally identifies 20 to 25 local and collector roads and bridges scheduled for improvement. New projects are added to the bottom of the list and move up as projects at the top are completed.

Projects included in the Secondary Road Improvement Program are subject to certain funding constraints imposed by VDOT. Approximately 30 to 35 percent of the money must be used to pave dirt and gravel roads. Generally, Culpeper County allocates the majority of funding to paving projects. One bridge replacement or renovation project utilizing FAS (Federal Aid Secondary) funds also must be included most years.

Funding Road Improvements

The main sources of funds for roadway construction and improvement in Culpeper County are VDOT's Primary and Secondary Road Improvements Programs. Other public road funding programs include Industrial Access funds and Revenue Sharing funds.

VDOT also administers the Federal Transportation Enhancement grant program. This program is intended to finance activities which go beyond the normal elements of a transportation improvement project. Such projects as bike or walking paths, or the rehabilitation of historic transportation related buildings can be funded through this program. Funds are allocated through a competitive application process. These funds are provided through the Transportation Efficiency Act (TEA-21).

Culpeper County received authority in 1989 to accept off-site improvements or proffers as part of conditional zonings. These proffers are typically received from the developer and incorporated into the approval of rezonings. Proffers should be used in the future to accomplish needed road improvements. An additional source of funding may be the Town of Culpeper. The Town-County Loop Road and Lovers Lane Industrial Area Plans are very beneficial to alleviating traffic congestion within the Town Corporate Limits.

THE TRANSPORTATION PLAN

Corridor Plans

Through this plan, a series of corridor protection overlay zones for the County's arterial roads could be developed. Corridor plans for other sensitive non-arterial roadways also could be included as appropriate. Corridor Plans could include setback requirements, access regulations, signage regulations and other such regulations which would protect the capacity of the roadway, enhance its scenic qualities and facilitate planned future improvements.

This chapter generally, and the Future Road Plan section specifically, should serve as the basis for Corridor Plans. The creation of such plans should be considered upon adoption of this chapter.

Arterial Plans

The network of arterials serving Culpeper County is the backbone of the transportation system and each one should have a long range plan. These arterial plans should be based on projected increases in demand and should ensure that each arterial will continue to provide the mobility required by this classification of roads. In general, access on all of these roads should be limited to a practical extent, and improvements should focus on preserving mobility and increasing safety.

Route 3: Route 3 provides the main connection between Culpeper and Fredericksburg, where motorists can access Interstate 95. This road passes primarily through farmland but also through the Stevensburg Village Center. The entire length of Route 3 will be expanded from two lanes to four lanes, with a Bypass planned around Stevensburg. This should increase safety on this road as well as provide needed additional capacity.

Route 522: Route 522 consists of a segment running southeast of Town and a segment running west of Town. VDOT projects that Route 522 will continue to have poor levels of service, as no improvements are currently planned. This road should be considered for inclusion on the County's Primary Road Priority List.

Route 229: The improvements planned for this road on the Primary Road Priority List will address the existing capacity deficiencies and safety problems on the segment from Town to Catalpa.

Route 15: No improvements are currently planned for Route 15. The existing LOS D is expected to deteriorate to LOS E by 2025. Orange County has requested that VDOT consider widening this road to four lanes. Such an improvement coupled with additional development in Orange County may necessitate widening the segment in Culpeper County as well.

Route 211: This is a major east-west route, but only four miles of it lie within Culpeper County. Planning for this roadway should focus on the development of the Clevenger's Corner area, which is located at the intersection of Route 229 and Route 211. This area will require substantial improvements in conjunction with any future development. The 229 / 211 intersection is currently signalized, and this area is expected to become increasingly congested in the next few years. An area plan for Clevenger's Corner is included in this chapter. With a focus on maintaining a village at this location, no grade separated improvements are proposed, although they could be easily justified.

Route 29: Route 29 is the main roadway in Culpeper County, providing intracounty and regional access. The County's policy is to preserve this road to the extent practical as a limited access roadway. An area plan for the southwestern half of Route 29 is presented in this chapter. The remaining portion of Route 29 is already a limited access facility.

Route 15/29 Business: Route 15/29 Business is the primary access route to the Town and County's business and industrial centers. The segment to the east of Town runs through one of the three primary areas targeted by the County for future industrial development. This road bears the dual responsibility of providing access while at the same time accommodating

significant volumes of through traffic. An area plan for Route 15/29 Business from the Town limits to Inlet is presented in this chapter.

AREA PLANS

Route 29 South Corridor (Map 8.C)

Route 29 is the primary road linking Culpeper County to the northern and central Virginia regions. This road is a major transportation corridor in Virginia and has experienced a significant traffic volume increase during the past decade. The plan developed for this corridor emphasizes two things. First, this road should primarily serve to move traffic, so access should be limited to promote mobility. Second, safety is a major issue on this road, particularly at intersections on the segment which runs southwest from the Town of Culpeper.

VDOT, working with the consulting firm of Post, Buckley, Schuh and Jernigan (PBSJ), completed a study of the Route 29 corridor from Warrenton to Charlottesville in 2002. The goal of their study was to project future use of this corridor and to develop a plan to accommodate anticipated increases in traffic volumes. One result of this study was a plan alternative which proposed developing Route 29 as a freeway. The entire length of Route 29 would have controlled access and interchanges would be built to provide exit and entrance points. Access to properties adjacent to Route 29 would be provided through a series of frontage roads.

There was a mixed reaction to the freeway concept plan proposed by PBSJ from the communities included in the study area. Several counties opposed it on the grounds that they wanted to preserve their right to access Route 29, particularly for commercial and industrial purposes. Culpeper County has always recognized the need to control access to this roadway. The portion of Route 29 from the north Town limits to the Fauquier County line is already a limited access highway. It is Culpeper County's current intention to maintain mobility on this road by controlling access to the greatest extent possible.

In response to the two issues of safety and mobility, the area plan for the Route 29 South Corridor has been prepared. Highlights of this plan include:

- Reservation of right-of-way for a new third lane to be implemented on both the northbound and southbound portions of Route 29.
- Upgrade of the northbound lanes to a 60 mph design speed.
- The construction of an interchange between Routes 643 and 718.
- Construction of frontage and collector roads to serve the areas of the County which are zoned for commercial and medium density residential development.
- A proposed new road which will provide a connection to Route 522, originating from the proposed new interchange between Routes 643 and 718.
- Closure of existing crossovers where access to an interchange can be provided.

Route 15/29 Business to Inlet (Map 8.D)

This area is strategically located for industrial and commercial development due to its proximity to the Town of Culpeper, the availability of water and sewer service, and its access to major roads. If this area is to develop to the extent envisioned in the Comprehensive Plan, the transportation network serving it must provide internal access and accommodate the expected increases in traffic, including the heavy vehicles associated with industrial uses.

The 15/29 Business area plan anticipates the transportation needs of this area. While 15/29 Business provides access to this area, it is also a gateway to the Town of Culpeper, and should be developed as such. This plan represents a vision of future area access and circulation and may not be built in its entirety for many years.

Major elements include:

- A new configuration of roads around the interchange at Route 15/29 Business - 15/29 Bypass.
- A road parallel to Route 15/29 business. This road should be constructed to act as a service road to provide some traffic relief for Route 15/29 Business. Care must be taken to insure that this parallel road does not become congested by excessive development, but some development is expected. The area north of this parallel road is designated as rural, and as such, commercial/industrial development should be contained between this parallel road and Route 15/29. Residential development should be of rural density along this corridor.
- Construction of a diamond interchange at the intersection of 15/29 Bypass and Route 666, and a connection from that interchange to Ira Hoffman Lane. This connection would provide direct access between the Route 15/29 Business corridor/shopping area and the Route 15/29 Bypass.
- Improvement of Route 666 (Bragg's Corner Road) between 15/29 Business and 15/29 Bypass, including a realigned intersection with 15/29 Business.

Town Vicinity Improvements: Loop Road (Map 8.E)

One long range project that Culpeper County will implement in phases is a system of roads creating a loop around the Town of Culpeper. One of the most congested road segments in the County is Main Street, which occurs as a result of the convergence of all the County's minor arterials. The loop road concept will provide through traffic with a convenient and efficient way to Bypass the Town.

The first phases of this planned loop are complete. Route 694 has been extended to connect Route 15/29 Business with Route 229. This road is currently two lanes. Projects currently under construction will begin widening Route 694 to its ultimate four lanes, however, this will occur in phases, beginning with adding a third lane to one major segment. Route 694 will be extended south of 15/29 Business to connect with Route 699. McDevitt Drive has been

extended north from Route 3 to connect with Route 699. These three projects will complete the eastern half of the loop around Culpeper.

To the west, Route 729 has been realigned to connect with Route 229 across from Route 694, creating a signalized 4-way intersection. The next segment would extend from Route 729 to Route 522 west. The connection from Route 729 to Route 522 is detailed on **Map 8.F**. The final connection, from Route 522 south to Route 29, is the most extensive and likely the most problematic. The Plan calls for a connection utilizing a small portion of the existing Route 641, and a new alignment to connect with Route 29 at the location of a proposed diamond interchange.

Lovers Lane Industrial Area (Map 8.G)

The Lovers Lane Industrial Area Plan focuses on the industrial area south of Lovers Lane (Route 686), between Route 15 and Route 522. Based upon projected future development, a connector road is planned from Route 15 at Route 299 to Route 522. This road would effectively be an extension of Route 299. The road could relieve congestion at the intersection of Route 3 and Route 522 and at the Route 3 – Route 15/29 interchange by providing another outlet to major arterials such as Route 15 and Route 29.

Elkwood Area Plan (Map 8.H)

The Elkwood Area Transportation Plan focuses on the area north of Route 15/29. The Elkwood area contains the Culpeper Regional Airport, the Culpeper Industrial Airpark, and several other large undeveloped parcels which are planned for industrial development.

The transportation plan developed for the Elkwood area addresses two issues: increasing access within the Elkwood area and providing safer, more efficient access from this area to Route 15/29. The plan takes into account the expected future industrial development of this area and the relatively greater amount of heavy truck traffic which is associated with this development.

The plan for the Elkwood industrial area features a service road set back from Route 15/29 which extends from Route 676 all the way to Frontage Road F715. Connections to Route 15/29 may eventually require grade separation, such as fly-overs or interchanges. A network of internal roads is proposed. Also included in this plan is the anticipated modification of Route 677 to reduce its impact on the airport.

Clevenger's Corner Area Plan (Map 8.I)

The Clevenger's Corner area, which is focused on the intersection of Routes 211 and 229, is designated by the Comprehensive Plan as a Village Center. As such, it is planned for a mix of residential, commercial and light industrial growth. The area is currently seeing proposals for major residential and mixed use developments, which will increase the amount of traffic on area roads. The goal of this plan is to preserve mobility on Route 211 while providing access to the surrounding properties. The major element of this plan is:

- The realignment of Route 622 to intersect with a future road serving new development

and providing a parallel road to Route 229 all the way from Route 211 to Route 621. A commuter parking area is needed in this area, and should be constructed near this intersection.

Airport (Map 8.J)

The specific improvements at the Culpeper County Airport are detailed in the Airport Master Plan. The objectives of the improvement projects identified in the Master Plan are:

- to maximize the safety and utility of the airfield for the aircraft currently operating at the airport;
- to maximize the economic benefit of the airport to the County of Culpeper.

The improvement projects recently completed at the Airport include the extension of Runway 4-22 (with associated taxiways and safety areas), upgrading the existing non-precision approach, obstruction clearing, land purchases, and hangar/apron expansion. These improvements were a multi-year effort, completed in 2004. They are summarized below.

Property Acquisition:

Land acquisitions have provided an important safety measure for the airport by ensuring that the County will control clear areas at the ends of the runway (runway protection zone or RPZ).

Runway 22 RPZ/Approach: Acquired approximately 29 acres at the north end of the runway.

Runway 04 RPZ/Approach: Acquired approximately 40 acres at the south end of the runway.

Water and Sewer Service: The extension of water and sewer lines from the Culpeper County Industrial Airpark to the airport was a top priority capital project. These lines extend from Airpark Drive west along Hubbard Run, then north along Beverly's Ford Road. They may be extended further north to the hanger area in the future.

South Taxiway and Apron Expansion: A critical need has been met for a parallel taxiway extension for safety purposes, as well as an apron expansion to provide additional space for transient and based aircraft.

Runway / Taxiway extension: The lengthening of the runway from 4,000 to 5,000 feet, along with its widening from 75 to 100 feet and the complete upgrade of the taxiway and all lighting was completed in 2004. This effort has placed Culpeper Regional Airport among the finest airport facilities of its size.

Future Projects:

Beverly's Ford Road Relocation: State Secondary Route 677 (Beverly's Ford Road) presents an obstruction to the airport on the north end. As a safety measure required by the FAA, the road may need to be relocated in the future.

New Terminal Facility: The Master Plan finds the current terminal to be inadequate and recommends that it be replaced. A Terminal Area Layout Plan has been prepared, and the future terminal location is established.

Other Projects: Other projects at the airport, such as the installation of a localizer, placement of supplemental windcones, and the installation of an automated weather system, have been implemented as needed. Such projects are anticipated to arise from time to time and are addressed by the Airport Commission and the County Board of Supervisors.

Area Plan Maps

Each of the maps that follow are intended to set forth a variety of long-range planning efforts which would ultimately serve our projected transportation needs well into the future. With the exception of the Airport Development Plan, it is unlikely that all of the proposed plans will be realized exactly as shown. The plans contain concepts which may be altered as a result of engineering or other constraints. Additionally, funding of proposed improvements will act as the most obvious constraint.

The plans should be utilized as a guideline. Projects may be prioritized and implemented as they become feasible. Consideration of development proposals should always take into account the conceptual plans in this chapter, and should be required to implement them to the extent possible, preserving right-of-way at a minimum. These plans should also be flexible enough to permit alternative solutions to meet our transportation needs.

TABLE 8.1

TRAFFIC VOLUMES AND CAPACITIES FOR CULPEPER COUNTY ARTERIAL ROADS

Principal Arterial Segment	Length (MI)	Existing ADT 2002	V/C Ratio Current	Level of Service	Projected ADT 2025	V/C Ratio 2025	Level of Service
Rt. 211 (Rapp. CL to Rt. 229)	2.95	9,400	0.36	A	14,967	0.57	B
Rt. 211 (Rt. 229 to Fauq. CL)	0.91	14,000	0.42	A	18,107	0.56	B
Rt. 29 (Mad. CL to Rt. 29 Bus.)	6.48	24,000	0.53	B	26,625	0.77	C
Rt. 29 (Rt. 29 Bus. To Rt. 15)	0.99	22,000	0.43	A	25,466	0.68	B
Rt.15/29 (Rt. 15 Bus. To Rt. 3)	1.48	26,000	0.48	D	31,470	0.62	E
Rt. 15/29 (Rt. 3 to Rt. 15/29 Bus.)	3.71	25,000	0.36	D	31,470	0.56	E
Rt. 15/29 (15/29 Bus. To Fauq. CL)	7.2	25,000	0.48	D	31,470	0.62	E

Minor Arterial Segment	Length (MI)	Existing ADT 2003	V/C Ratio Current		Projected ADT 2025	V/C Ratio 2025	
Rt. 3 (Cul. TL to Rt. 522)	0.66	11,000	0.33	A	23,289	0.5	B
Rt. 3 (Rt. 522 to Rt. 647)	9.09	9,600	0.36	D	12,159	0.54	D
Rt. 3 (Rt. 647 to Orange CL)	3.52	8,200	0.22	A	11,106	0.29	A
Rt. 15 (Mad. CL to Rt. 15/29)	8.67	6,300	0.36	D	11,307	0.49	E
Rt. 229 (Cul. TL to Rt. 685)	1	9,000	0.4	D	11,634	0.51	E
Rt. 229 (Rt. 685 to Rt. 640)	5.13	6,100	0.34	D	9,017	0.39	D
Rt. 229 (Rt. 640 to Rt. 211)	7.6	5,900	0.34	D	9,959	0.43	D
Rt. 522 (Orange CL to Rt. 617)	4.16	3,600	0.24	D	6,191	0.28	D
Rt. 522 (Rt. 617 to Rt. 3)	3.12	5,300	0.47	E	15,553	0.81	E
Rt. 522 (Cul. West TL to Rt. 707)	8.27	9,800	0.5	D	11,386	0.53	E

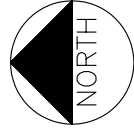
CL=County Line; TL= Town Limits

¹VDOT 2002 Average Daily Traffic Volumes

²VDOT 2025 Statewide Highway Plan (Preliminary)

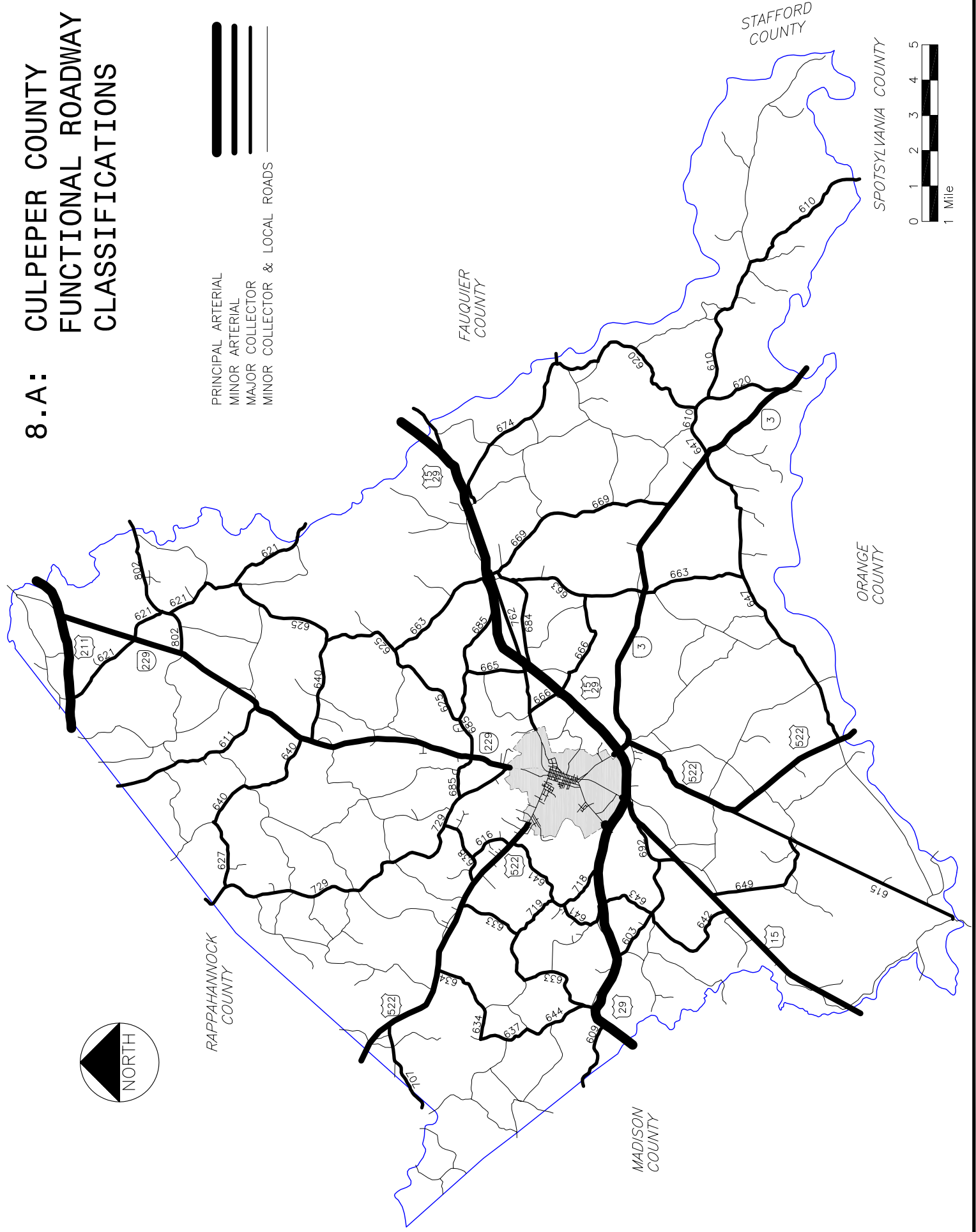
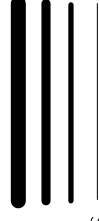
8.A:

CULPEPER COUNTY FUNCTIONAL ROADWAY CLASSIFICATIONS



RAPPAHANNOCK
COUNTY

PRINCIPAL ARTERIAL
MINOR ARTERIAL
MAJOR COLLECTOR
MINOR COLLECTOR & LOCAL ROADS



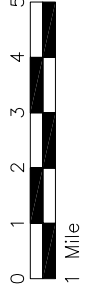
FAUQUIER
COUNTY

STAFFORD
COUNTY

SPOTSYLVANIA COUNTY

ORANGE
COUNTY

MADISON
COUNTY



8.B:

CULPEPER COUNTY
VIRGINIA BYWAYS AND
SCENIC ROADS



— VIRGINIA BY-WAY
- - - COUNTY SCENIC ROAD

RAPPAHANNOCK
COUNTY

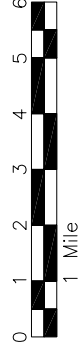
FAUQUIER
COUNTY

MADISON
COUNTY

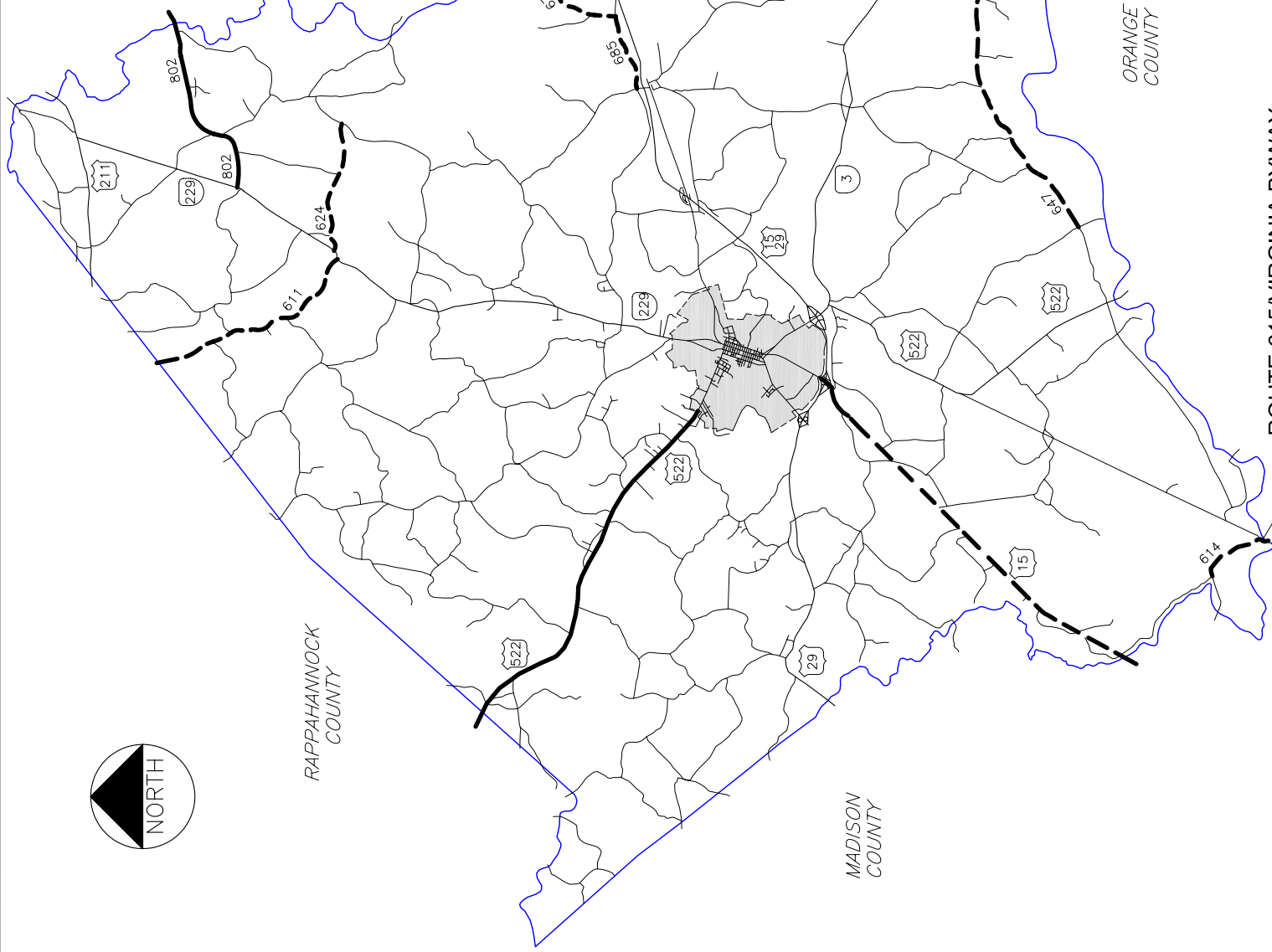
ORANGE
COUNTY

SPOTSYLVANIA COUNTY

STAFFORD
COUNTY



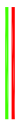



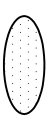
ROUTE 615/VIRGINIA BYWAY

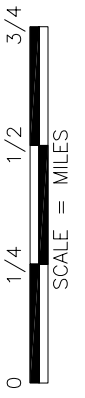


8.C: ROUTE 29 SOUTH CORRIDOR

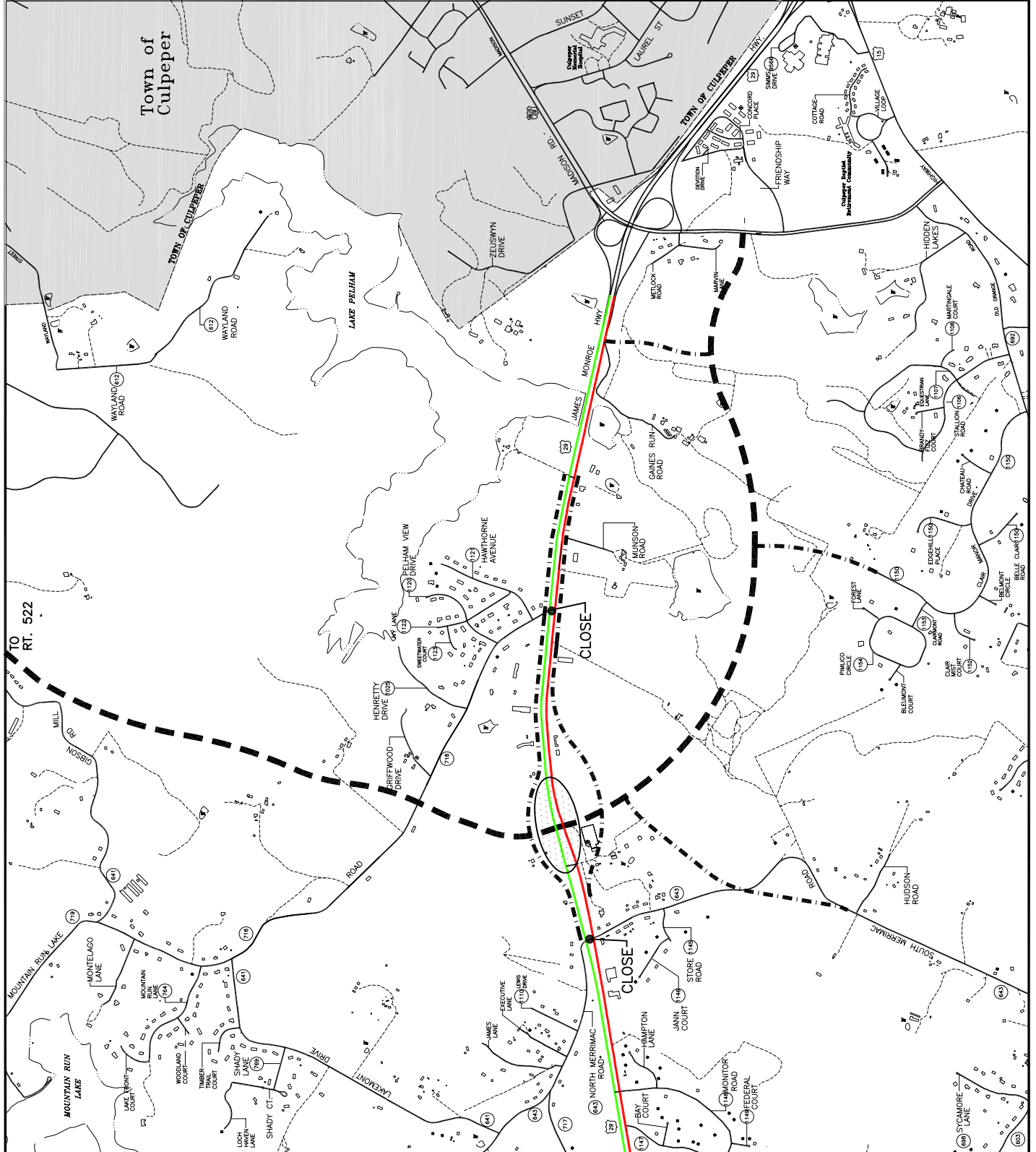


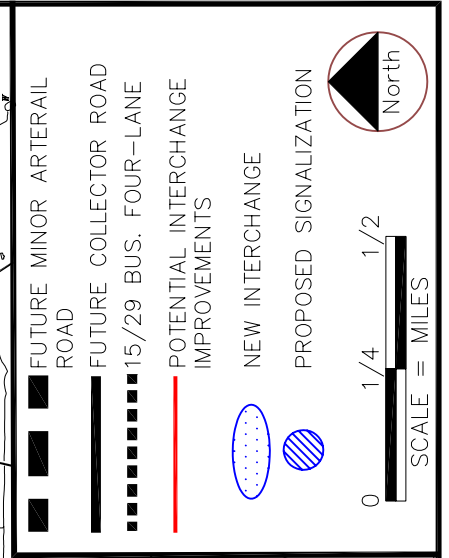
LEGEND

-  PRESERVE RIGHT-OF-WAY FOR THIRD LANE NORTH—BOUND AND SOUTHBOUND (CONTINUE TO MADISON COUNTY LINE)
-  UPGRADE LANES TO 60 MPH DESIGN SPEED
-  MINOR ARTERIAL
-  MINOR COLLECTOR/FRONTAGE ROAD
-  POTENTIAL FUTURE INTERCHANGE

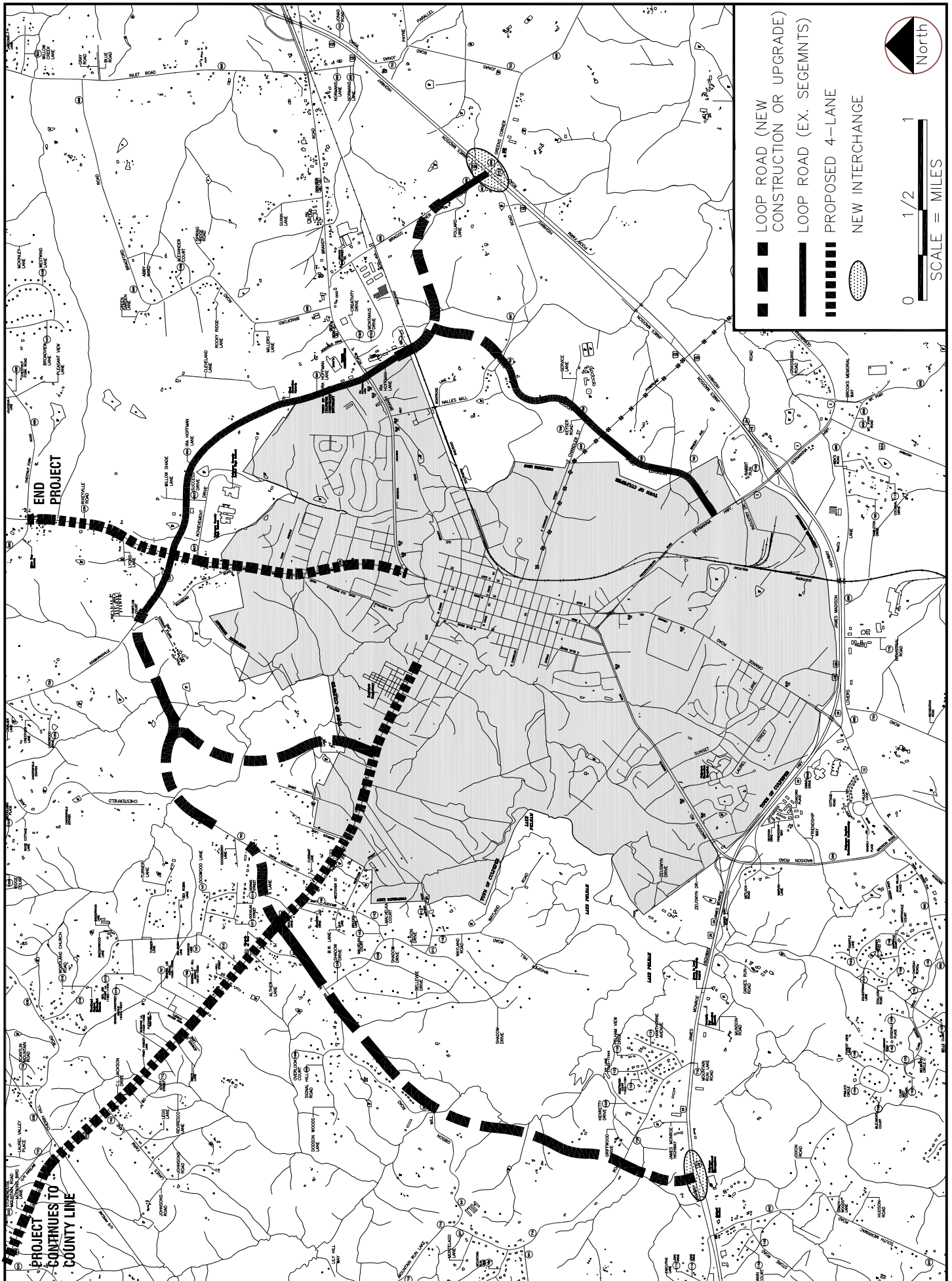


PREPARED BY CULPEPER COUNTY PLANNING DEPT.



[illegible]

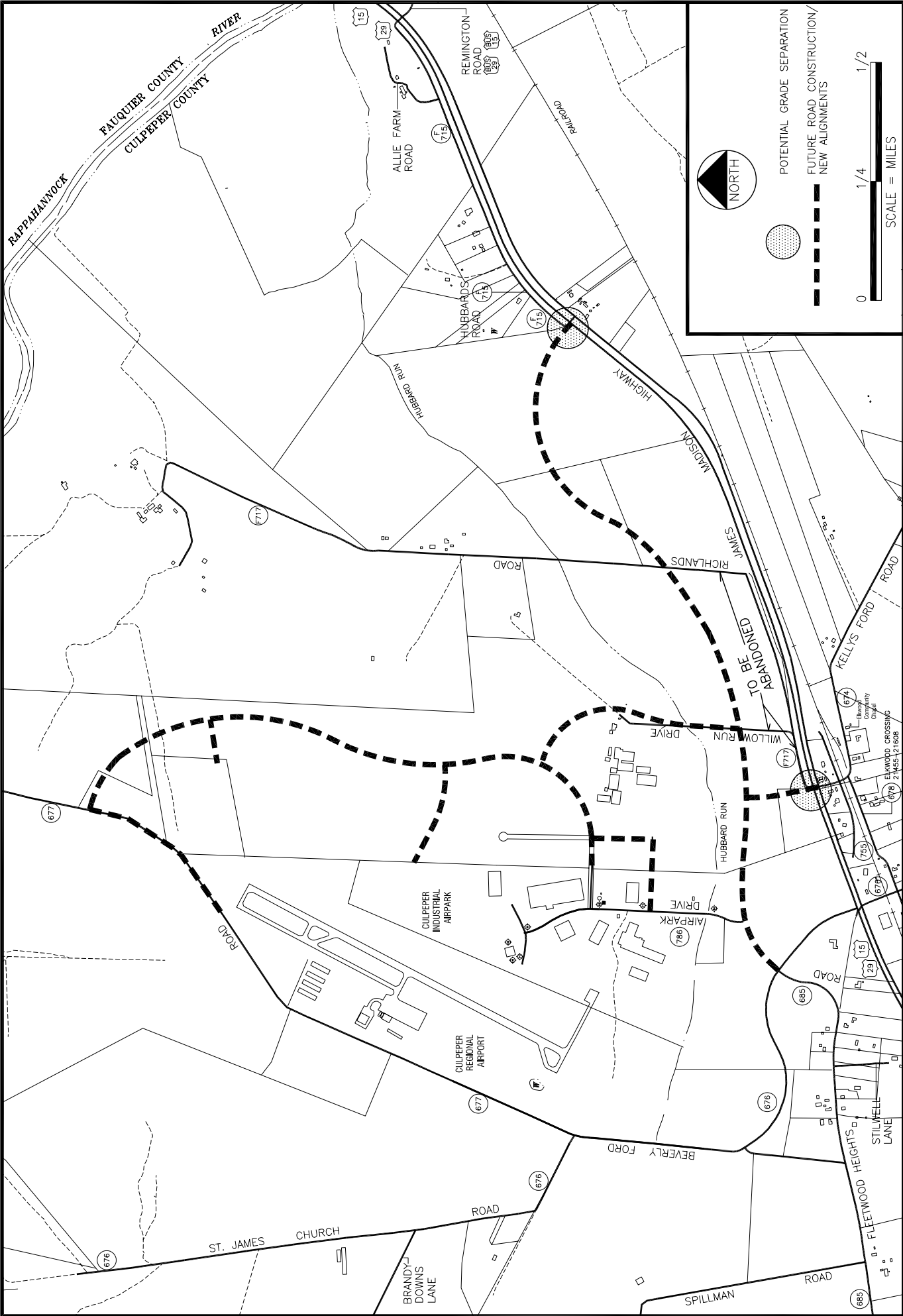
8.E: TOWN VICINITY IMPROVEMENTS: TOWN/COUNTY LOOP ROAD

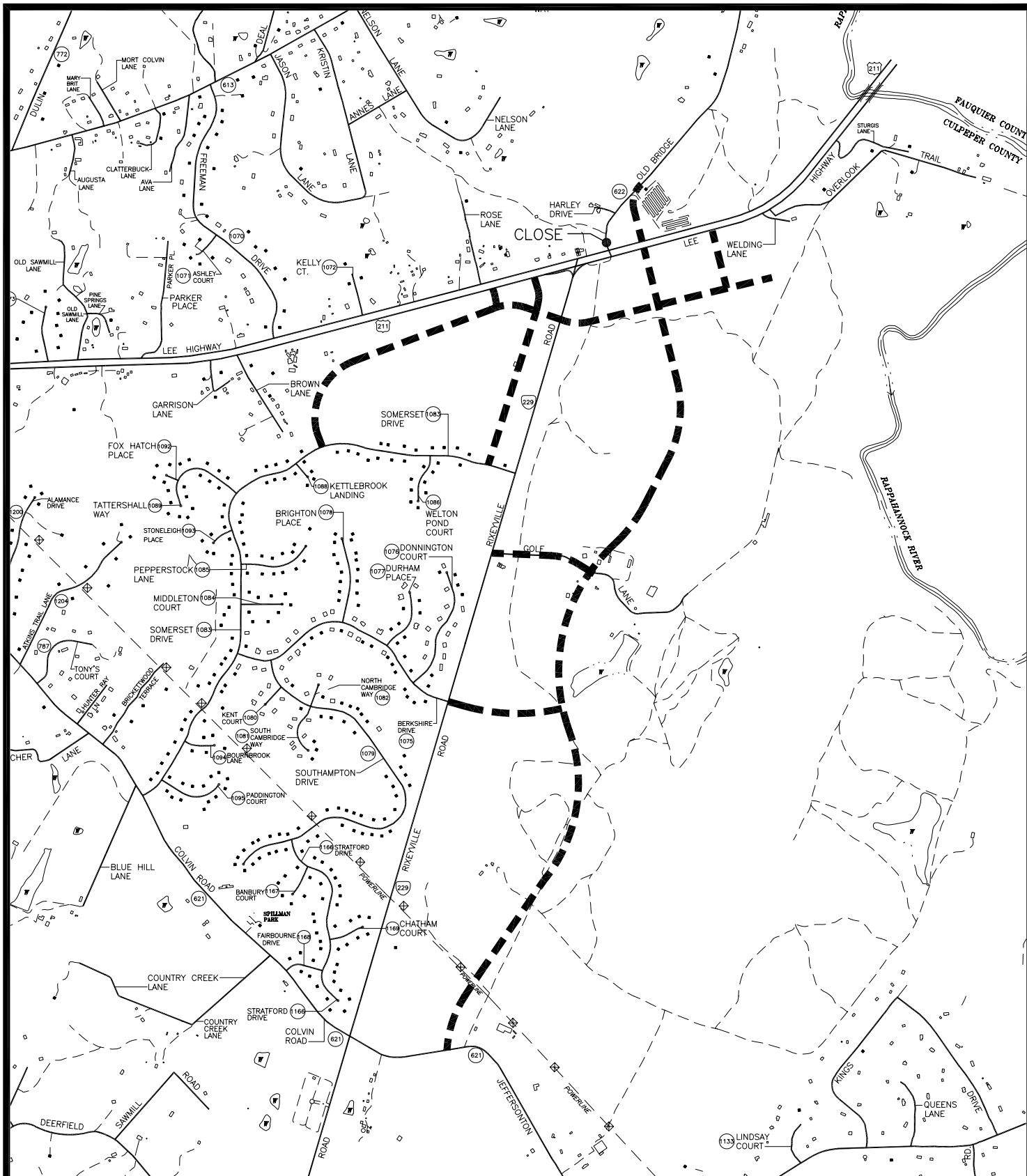


The map displays the proposed alignment for the new Interstate 66 (I-66) highway, shown as a thick dashed line. The alignment runs from the northwest, near the Washington D.C. Corporate Boundary, southeast through the Culpeper area. Key features include:

- Major Roads:** I-66, I-266, I-64, James Madison Highway, Cedar Run Church Road, Lunda Lane, and various local roads like Grove Road, Carleton Drive, and Industrial Road.
- Geographic Features:** The Potomac River is shown on the left side of the map.
- Communities:** The Culpeper Baptist Retirement Community is shaded in gray. Other areas include the Town of Culpeper and the Washington D.C. Corporate Boundary.
- Legend:** A thick dashed line represents the "FUTURE ROAD/CONSTRUCTION/NEW ALIGNMENT". A scale bar indicates distances from 0 to 1 1/2 miles.
- Orientation:** A north arrow is located in the top right corner.

8.H: ELKWOOD BUSINESS/INDUSTRIAL AREA PLAN





8.I: CLEVENGERS CORNER AREA PLAN

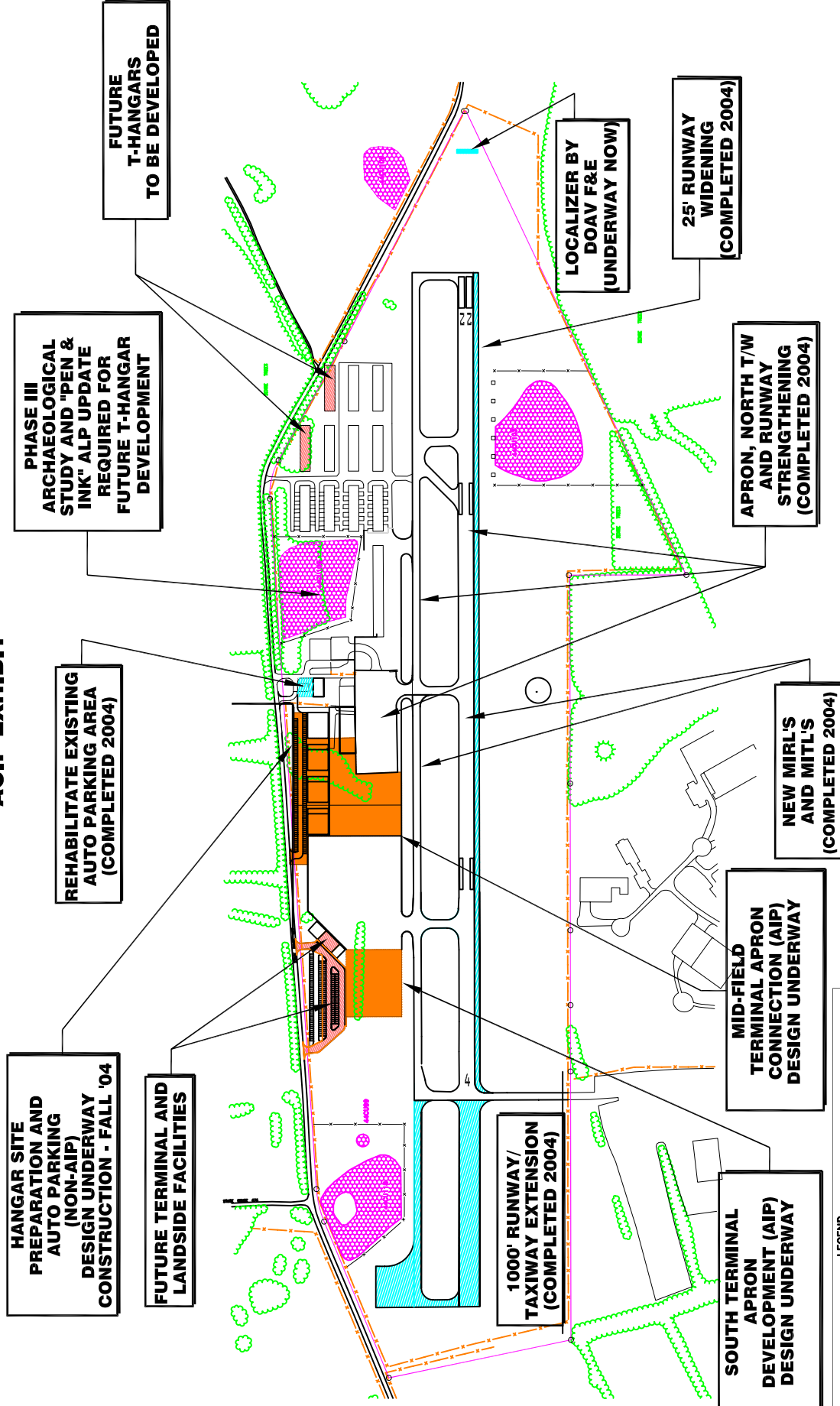
--- FUTURE ROAD CONSTRUCTION/
NEW ALIGNMENTS



0 1/4 1/2 1
SCALE = MILES

8-J: CULPEPER REGIONAL AIRPORT

ACIP EXHIBIT



LEGEND	
	TREE LINE
	EXISTING FENCE LINE
	PROPOSED FENCE LINE
	CONCRETE MARKERS
	ARCHAEOLOGICAL SITE IDENTIFICATION (JUNE 1993)
	ARCHAEOLOGICAL SITES TO AVOID
	PROPOSED AIRPORT DEVELOPMENT
	AIRPORT PROPERTY LINE